

IN THE CLAIMS:

1. (Currently Amended) A storage system comprising:
 - a channel unit that transfers data sent from an upper-level system and transfers data to said upper-level system;
 - a plurality of cache units which are coupled to said channel unit and in which data sent from said channel unit is stored;
 - a control unit that is coupled to said cache units, and transfers or receives data to or from said cache units;
 - at least one first processor controlling transfer of data between said channel unit and said plurality of cache units;
 - at least one second processor controlling transfer of data between said control unit and said plurality of cache units;
 - a disk device in which data sent from said control unit is stored; and
 - a plurality of paths coupling said channel unit to said plurality of cache units, a first one of said paths coupling said channel unit to a first one of said cache units, a second one of said paths coupling said channel unit to a second one of said cache units, and a third one of said paths coupling said first one of said cache units to said control unit, wherein
said first one of said paths has no overlap with said second one of said paths.
2. (Canceled)
3. (Original) A storage system according to Claim 2, wherein said first path and said second path are independent of each other.
4. (Original) A storage system according to Claim 2, wherein said first path is dedicated to communication between said first cache unit and said channel unit.
5. (Original) A storage system according to Claim 4, wherein said second path is dedicated to communication between said second cache unit and said channel unit.

6. (Original) A storage system according to Claim 1, wherein among said plurality of paths, a path linking said channel unit and a predetermined cache unit included in said plurality of cache units is not the same as a path linking said channel unit and an other cache unit included in said plurality of cache units.

7. (Original) A storage system according to Claim 2, wherein said first path directly links said first cache unit to said channel unit.

8. (Original) A storage system according to Claim 7, wherein said second path directly links said second cache unit to said channel unit.

9. (Original) A storage system according to Claim 2, wherein said first path links said first cache unit to said channel unit on a point-to-point basis.

10. (Original) A storage system according to Claim 9, wherein said second path links said second cache unit to said channel unit on a point-to-point basis.

11. (Previously Presented) A storage system according to Claim 1, wherein said disk device includes a plurality of disk drives, and said control unit is coupled to said plurality of disk drives.

12. (Original) A storage system according to Claim 1, wherein said plurality of paths are signal lines linking said channel unit and said plurality of cache units.

13. (Original) A storage system according to Claim 1, wherein said plurality of paths are used to communicate a reading request, which is issued from said upper-level system, from said channel unit to one of said plurality of cache units, and used to communicate data read from said plurality of cache units to said channel unit.

14. (Original) A storage system according to Claim 1, wherein said plurality of paths includes a number of paths equal to a number of cache units included in said plurality of cache units.

15. (Previously Presented) A storage system according to Claim 1, wherein said plurality of paths are used to communicate a writing request, which is issued from said upper-level system, and used to communicate data written from said channel unit to one of said cache units.

16. (Currently Amended) A storage system comprising:
a channel unit that transfers data sent from an upper-level system and transfers data to said upper-level system;
a plurality of cache units in which data sent from said channel unit is stored;
a control unit that is coupled to said cache units, and transfers or receives data to or from said cache units;
at least one first processor controlling transfer of data between said channel unit and said plurality of cache units;
at least one second processor controlling transfer of data between said control unit and said plurality of cache units;
a disk device in which data sent from said control unit is stored; and
a first path coupling said channel unit to a first one of said plurality of cache units, ~~and~~ a second path coupling said first one of said plurality of cache units to said control unit, and a third path coupling said control unit to a second one of said plurality of cache units, wherein said first path ~~is different from~~ has no overlap with said second path or said third path.

17. (Previously Presented) A storage system according to claim 16, wherein said first path and said second path are independent of each other.

18. (Currently Amended) A storage system according to Claim 16, wherein said first path directly links said first channel unit to said first one of said plurality of cache units.

19. (Currently Amended) A storage system according to Claim 16, wherein said first path links said first channel unit to said first one of said plurality of cache units on a point-to-point basis.

20. (Currently Amended) A storage system according to Claim 16, wherein said first and second paths are used to communicate a writing request, which is issued from said upper-level system, and used to communicate data written from said channel unit to first one of said plurality of cache units.